Aeronautics Educator Guide			
		2006 Scienc	
		Program of Stu	dies
Kentucky Science			
Grades K-3 Activity/Lesson	State	Standards	
Activity/Lesson	State	Stanuarus	forces (pushes or pulls) can cause objects to
		SCI.K-3.SC-P-	start moving, go faster, slow down, or change
Air Engines (12-16)	KY	MF-U-2	the direction they are going.
7 til Eliginos (12 10)		WII 0 2	the position of an object can be described by
		SCI.K-3.SC-P-	locating it relative to another object or the
Air Engines (12-16)	KY	MF-U-3	background.
			ask questions that can be investigated, plan and
			conduct 'fair tests,' and communicate (e.g.,
		SCI.K-3.SC-P-	write, draw, speak, multi-media) findings to
Rotor Motor (69-75)	KY	UD-S-7	others
			ask questions that can be investigated, plan and
Flight: Interdisciplinary		00114 0 00 D	conduct 'fair tests,' and communicate (e.g.,
Learning Activities (76-		SCI.K-3.SC-P-	write, draw, speak, multi-media) findings to
79)	KY	UD-S-7	others in science, it is often helpful to work with a team
			and to share findings with others. All team
			members should reach their own individual
Making Time Fly (80-		SCI.K-3.SC-P-	conclusions, however, about what the findings
86)	KY	STM-U-5	mean.
Where is North? The		011111 0 0	ask questions about motion, magnetism and
Compass Can Tell Us		SCI.K-3.SC-P-	sound and use a variety of print and non-print
(87-90)	KY	MF-S-8	sources to gather and synthesize information
			ask questions that can be investigated, plan and
Where is North? The			conduct 'fair tests,' and communicate (e.g.,
Compass Can Tell Us		SCI.K-3.SC-P-	write, draw, speak, multi-media) findings to
(87-90)	KY	UD-S-7	others
			create or interpret sketches, diagrams, 3-
			dimensional constructions and concept maps as
Latta Duital a Tabla Tara		001 K 0 00 D	models that can be used to represent things that
Let's Build a Table Top	KY	SCI.K-3.SC-P- ET-S-2	can be seen, cannot be seen, or cannot be seen easily or in their entirety
Airport (91-96)	K I	E1-3-2	communicate observations, investigations and
Plan to Fly There (97-		SCI.K-3.SC-P-	conclusions orally and with written words, charts
106)	KY	EU-S-7	and diagrams
We Can Fly, You and			observe weather conditions and record weather
I: Interdisciplinary		SCI.K-3.SC-P-	data over time using appropriate tools (e.g.,
Learning (107-108)	KY	EU-S-3	thermometer, wind vane, rain gauge, etc.)
			create or interpret sketches, diagrams, 3-
			dimensional constructions and concept maps as
We Can Fly, You and			models that can be used to represent things that
I: Interdisciplinary		SCI.K-3.SC-P-	can be seen, cannot be seen, or cannot be seen
Learning (107-108)	KY	ET-S-2	easily or in their entirety
			in science, it is often helpful to work with a team
			and to share findings with others. All team
Dunked Nankin / 17		SCI.K-3.SC-P-	members should reach their own individual
Dunked Napkin (17-	KY	STM-U-5	conclusions, however, about what the findings
22)	r\ I	S IVI-U-5	mean.

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Dunked Napkin (17-22)	KY	SCI.K-3.SC-P- STM-S-6	work with others to investigate questions about properties of materials, documenting and communicating observations, designs, procedures and results
Dunked Napkin (17-22)	KY	SCI.K-3.SC-P- MF-U-6	discovering patterns through investigation/observation allows predictions, based on that evidence, to be made about future events.
Dunked Napkin (17- 22)	KY	SCI.K-3.SC-P- UD-S-7	ask questions that can be investigated, plan and conduct 'fair tests,' and communicate (e.g., write, draw, speak, multi-media) findings to others
Paper Bag Mask (23-28)	KY	SCI.K-3.SC-P- STM-S-2	use appropriate tools (e.g., balance, metric ruler, thermometer, graduated cylinder) to measure and record length, width, volume, temperature and mass of material objects and to answer questions about objects and materials
Paper Bag Mask (23-28)	KY	SCI.K-3.SC-P- UD-S-7	ask questions that can be investigated, plan and conduct 'fair tests,' and communicate (e.g., write, draw, speak, multi-media) findings to others
Wind in Your Socks) (29-35)	KY	SCI.K-3.SC-P- STM-S-2	use appropriate tools (e.g., balance, metric ruler, thermometer, graduated cylinder) to measure and record length, width, volume, temperature and mass of material objects and to answer questions about objects and materials
Wind in Your Socks) (29-35)	KY	SCI.K-3.SC-P- MF-U-6	discovering patterns through investigation/observation allows predictions, based on that evidence, to be made about future events.
Wind in Your Socks) (29-35)	KY	SCI.K-3.SC-P- MF-S-2	observe and describe (e.g., using words, pictures, graphs) the change in position over time (motion) of an object
Wind in Your Socks) (29-35)	KY	SCI.K-3.SC-P- EU-S-3	observe weather conditions and record weather data over time using appropriate tools (e.g., thermometer, wind vane, rain gauge, etc.)
Wind in Your Socks) (29-35)	KY	SCI.K-3.SC-P- EU-S-7	communicate observations, investigations and conclusions orally and with written words, charts and diagrams
Bag Balloons (40-43)	KY	SCI.K-3.SC-P- MF-S-8	ask questions about motion, magnetism and sound and use a variety of print and non-print sources to gather and synthesize information
Bag Balloons (40-43)	KY	SCI.K-3.SC-P- UD-S-7	ask questions that can be investigated, plan and conduct 'fair tests,' and communicate (e.g., write, draw, speak, multi-media) findings to others

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Sled Kite (44-51)	KY	SCI.K-3.SC-P- STM-S-2	use appropriate tools (e.g., balance, metric ruler, thermometer, graduated cylinder) to measure and record length, width, volume, temperature and mass of material objects and to answer questions about objects and materials
Sled Kite (44-51)	KY	SCI.K-3.SC-P- UD-S-7	ask questions that can be investigated, plan and conduct 'fair tests,' and communicate (e.g., write, draw, speak, multi-media) findings to others
Right Flight (52-59)	KY	SCI.K-3.SC-P- MF-S-4	use tools (e.g., timer, meter stick, balance) to collect data about the position and motion of objects in order to predict changes resulting from pushes and pulls
Delta Wing Glider (60-68)	KY	SCI.K-3.SC-P- EU-U-6	raising questions about the Earth and the Universe and seeking answers to some of them (by careful observation and/or investigation) is what science is all about.
Delta Wing Glider (60- 68)	KY	SCI.K-3.SC-P- ET-S-2	create or interpret sketches, diagrams, 3-dimensional constructions and concept maps as models that can be used to represent things that can be seen, cannot be seen, or cannot be seen easily or in their entirety
		Aeronautics Educate	or Guide
		2006 Science	
		Program of Stu	
Kentucky Science			
Grade 4			
Activity/Lesson	State	Standards	
Air Engines (12-16)	KY	SCI.4.SC-4-MF- U-1	an object's motion can be described as its change in position over time and can be represented in a variety of ways.
Air Engines (12-16)	KY	SCI.4.SC-4-MF- S-5	answer student-generated questions through investigative and non-investigative processes about what affects motion and sound using information from a variety of print and non-print sources
Rotor Motor (69-75)	KY	SCI.4.SC-4-MF- U-1	an object's motion can be described as its change in position over time and can be represented in a variety of ways.
Rotor Motor (69-75)	KY	SCI.4.SC-4-MF- S-1	measure and record changes (using appropriate charts, graphs) in the position and motion of an object to which a force has been applied
Rotor Motor (69-75)	KY	SCI.4.SC-4-MF- S-5	answer student-generated questions through investigative and non-investigative processes about what affects motion and sound using information from a variety of print and non-print sources

			forces (pushes and pulls) cause changes in the
Flight: Interdisciplinary			direction or speed of something moving; the
Learning Activities (76-		SCI.4.SC-4-MF-	greater the force on an object, the greater its
79)	KY	U-2	change in motion.
,			design and conduct investigations/experiments
			to compare properties of conducting and
			nonconducting materials (both heat and
			electrical), documenting and communicating
			(speak, draw, write, demonstrate) observations,
Making Time Fly (80-		SCI.4.SC-4-ET-	designs, procedures and results of scientific
86)	KY	S-6	investigations
00)	IX I	3-0	
			answer student-generated questions through
NAME and in Nightle O. The			investigative and non-investigative processes
Where is North? The		001 4 00 4 145	about what affects motion and sound using
Compass Can Tell Us		SCI.4.SC-4-MF-	information from a variety of print and non-print
(87-90)	KY	S-5	sources
			answer student-generated questions about
Where is North? The			forms of energy (e.g., heat, light, sound,
Compass Can Tell Us		SCI.4.SC-4-ET-	magnetic effects) using information from a
(87-90)	KY	S-9	variety of print and non-print sources
			a model of something can never be exactly like
Let's Build a Table Top		SCI.4.SC-4-EU-	the real thing, but can be used to learn
Airport (91-96)	KY	U-5	something about the real thing.
			seeing how a model works after changes are
Let's Build a Table Top		SCI.4.SC-4-ET-	made to it may suggest how the real thing would
Airport (91-96)	KY	U-6	work if the same thing were done to it.
We Can Fly, You and			seeing how a model works after changes are
I: Interdisciplinary		SCI.4.SC-4-ET-	made to it may suggest how the real thing would
Learning (107-108)	KY	U-6	work if the same thing were done to it.
We Can Fly, You and			people impact their environment in both
I: Interdisciplinary		SCI.4.SC-4-I-U-	beneficial and harmful ways. Some of these
Learning (107-108)	KY	3	impacts can be predicted, while others cannot.
Learning (107-108)	IX I	3	answer student-generated questions about the
Dunked Nankin (17		CCL 4 CC 4 LID	diversity of living things using information from a
Dunked Napkin (17-	107	SCI.4.SC-4-UD-	, , ,
22)	KY	S-5	variety of print and non-print sources
			scientists ask many questions about the world
			around them, but not all of their questions can
			be investigated in a scientific way. Part of the job
Dunked Napkin (17-		SCI.4.SC-4-BC-	of a scientist is to focus only on questions that
22)	KY	U-2	can be scientifically tested.
			scientists pay more attention to claims when
Dunked Napkin (17-		SCI.4.SC-4-BC-	they are supported with evidence that can be
22)	KY	U-3	confirmed through scientific investigation.
			investigate student-generated questions about
Paper Bag Mask (23-		SCI.4.SC-4-	the properties of matter and uses of matter with
28)	KY	STM-S-6	particular properties
,			
			measure and record changes (using appropriate
Paper Bag Mask (23-		SCI.4.SC-4-MF-	charts, graphs) in the position and motion of an
28)	KY	S-1	object to which a force has been applied
,	1		asjest to milen a force had been applied

			answer student-generated questions about
			how/why organisms and the environment have
D D 14 1 (00		201 4 20 4 20	changed over time using information from a
Paper Bag Mask (23-			variety of print and non-print sources to support
28)	KY	S-3	claims/provide evidence for conclusions
			measure and record changes (using appropriate
Wind in Your Socks)		SCI.4.SC-4-MF-	
	KY	S-1	object to which a force has been applied
(29-35)	N I	3-1	
			answer student-generated questions through
			investigative and non-investigative processes
Wind in Vous Cooks)		CCL 4 CC 4 ME	about what affects motion and sound using
Wind in Your Socks)	101	SCI.4.SC-4-MF-	information from a variety of print and non-print
(29-35)	KY	S-5	sources
			answer student-generated questions about
			how/why organisms and the environment have
			changed over time using information from a
Wind in Your Socks)		SCI.4.SC-4-BC-	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '
(29-35)	KY	S-3	claims/provide evidence for conclusions
		SCI.4.SC-4-	properties of materials may change if the
Bag Balloons (40-43)	KY	STM-U-3	materials become hotter or colder.
			answer student-generated questions about
			how/why organisms and the environment have
			changed over time using information from a
		SCI.4.SC-4-BC-	variety of print and non-print sources to support
Bag Balloons (40-43)	KY	S-3	claims/provide evidence for conclusions
			heat is a form of energy that results when
			another form of energy is transformed. Heat
			flows through different materials at different
		SCI.4.SC-4-ET-	rates, and it naturally flows from warmer areas
Bag Balloons (40-43)	KY	U-5	to cooler ones.
			answer student-generated questions through
			investigative and non-investigative processes
			about what affects motion and sound using
		SCI.4.SC-4-MF-	information from a variety of print and non-print
Sled Kite (44-51)	KY	S-5	sources
,			a model of something can never be exactly like
		SCI.4.SC-4-EU-	the real thing, but can be used to learn
Right Flight (52-59)	KY	U-5	something about the real thing.
g ()			seeing how a model works after changes are
		SCI.4.SC-4-ET-	made to it may suggest how the real thing would
Right Flight (52-59)	KY	U-6	work if the same thing were done to it.
rught rught (62 66)			use evidence and observations to make
			predictions/draw conclusions about how
		SCI.4.SC-4-I-S-	changes in the environment affect the plants'
Right Flight (52-59)	KY	2	and animals' ability to survive
. agric i agric (02-00)			a model of something can never be exactly like
Delta Wing Glider (60-		SCI.4.SC-4-EU-	the real thing, but can be used to learn
68)	KY	U-5	something about the real thing.
00)	13.1	0-0	seeing how a model works after changes are
Delta Wing Glider (60		SCI.4.SC-4-ET-	made to it may suggest how the real thing would
Delta Wing Glider (60-	KY	U-6	
68)	IV.I	υ-υ	work if the same thing were done to it.